

Letter to the Editor

The optimal management of a patient harbouring a cerebral arteriovenous malformation requires accurate information concerning the natural course of the disease. Most of us have read the classic studies by Ondra, Crawford, Brown or Graf as well as the more recent studies by Hillman, Apsimon and many others.

However, I want to focus your attention on the article by Karlsson et Al¹. Data from 2262 patients with cerebral arteriovenous malformations were analyzed. Sadly, it is unusual to see this excellent article in a reference list. I quote the abstract:

“To estimate the annual risk for the first haemorrhage, survival and life table statistics were used to analyze data from 2262 patients with cerebral arteriovenous malformations (AVM). We found that the risk for haemorrhage increases with increasing age. A validity test revealed, however, that life table statistics used on the total patient material underestimated the annual risk for haemorrhage, especially for patients 20-50 years of age. A method based on the fact that the distribution of the time at risk until the initial haemorrhage (= age at first rupture) reflects the risk for haemorrhage in untreated AVM was therefore also employed. The analysis yielded three conclusions: 1) the annual risk of haemorrhage increases with age; 2) small AVM are less prone to rupture; and 3) the risk of haemorrhage is higher in women during their fertile years as compared to males in the same age group. The risk related to age, AVM size and location assessed by survival statistics in the subgroup of patients with a known date for the initial haemorrhage gave similar results.”

I encourage all readers with an interest in cerebral arteriovenous malformations to read this article.

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References

- 1 Karlsson B, Lindquist C et Al: Annual risk for the first haemorrhage from untreated cerebral arteriovenous malformations. *Minim Invasive Neurosurg* 40(2): 40-46, 1997.

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